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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/27/2003

Eran Shpak

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6696

8791 7590 12/13/2004

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EXAMINER

JUNG, MIN

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/696,769	<b>Applicant(s)</b> SHPAK, ERAN	
	<b>Examiner</b> Min Jung	<b>Art Unit</b> 2663	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 14, 16, 18-21, 26 and 30-33 is/are rejected.
- 7) ☒ Claim(s) 6-13, 15, 17, 22-25, 27-29 and 34-41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 14, 16, 18, 19, 21, 26, 30, 31, 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewis. US Pat. 6,259,898.

Lewis discloses an access point for use in a wireless local area network.

Regarding claims 1 and 3, Lewis teaches an access point (access point 19) comprising: a plurality of wireless communication units (transceivers 36A and 36b), which are adapted to exchange data with mobile stations by transmitting and receiving signals over the air on different, respective frequency channels of the WLAN (col. 5, lines 26-45); and a physical layer interface, which is adapted to be coupled to a communication medium (physical layer interface may read on the Tx 40 and Rcv 38, with or without the microprocessor 44) so as to connect the plurality of wireless communication units to communicate with a hub (Client Server 23b) over a single physical link of the communication medium (LAN 15 including backbone 17). See Figs. 1 and 2, and col. 5, lines 26-45.

Regarding claim 2, Lewis discusses the utilization of IEEE 802.11 specification in a conventional system. See col. 9, lines 53-55.

Regarding claim 5, the LAN 15 of Lewis can be considered as a distribution system medium since data are distributed/collected using the LAN 15.

Regarding claim 14 and 19, Lewis teaches a system for mobile communication comprising: a hub (Client Server 23b); a communication medium (LAN 15), coupled to the hub; and a plurality of access points (Access Points 19), each of which comprises: two or more wireless communication units (transceivers 36a and 36b), which are adapted to exchange data with mobile stations by transmitting and receiving signals over the air on different, respective frequency channels of a wireless local area network (col. 5, lines 26-45); and a single physical layer interface (access point 32 and/or processor 30), coupled to the communication medium, so as to connect the two or more wireless communication units to communicate with the hub over the communication medium. See col. 5, lines 26-45.

Regarding claim 16, Lewis teaches that the access points have respective service areas and are arranged so that at least some of the service areas substantially overlap. See col 3, lines 52-60. Also, it is inherent that coverage areas overlap in some regions.

Regarding claim 18, Lewis discusses the utilization of IEEE 802.11 specification in a conventional system. See col. 9, lines 53-55.

Regarding claim 21, the LAN 15 of Lewis can be considered as a distribution system medium since data are distributed/collected using the LAN 15.

Regarding claim 26, Lewis teaches a method for mobile communication, comprising: arranging an access point in a wireless local area network (Fig. 1), the

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access point comprising two or more wireless communication units (transceivers 36a and 36b), which are adapted to exchange data with mobile stations by transmitting and receiving signals over the air on different, respective frequency channels of the WLAN (col. 5, lines 26-45); coupling the access point to a hub over a single physical communication link (Fig 2, with the link being the backbone 17); and conveying the data between the plurality of the wireless communication units and the hub over the single link. See col. 4, line 19 – col. 5, line 45.

Regarding claim 30, Lewis discusses the utilization of IEEE 802.11 specification in a conventional system. See col. 9, lines 53-55.

Regarding claim 31, Lewis teaches coupling the access point (19) and the hub (23b) to a wired local area network (15). See Fig. 1.

Regarding claim 33, the LAN 15 of Lewis can be considered as a distribution system medium since data are distributed/collected using the LAN 15.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 20, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis.

Lewis fails to specifically teach that the physical layer interface is adapted to transmit and receive data frames in accordance with an Ethernet physical layer specification. However, Ethernet is a well-known and most widely used communication specification, and therefore, is readily available to be adopted in any communication environment. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to employ Ethernet scheme when making the wireless network of Lewis to provide necessary specification for the practical application.

***Allowable Subject Matter***

5. Claims 6-13, 15, 17, 22-25, 27-29, 34-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: Prior art fail to teach an access point and the related method as claimed in the present invention including the features of multiplexer and demultiplexer between the wireless communication units and the physical layer interface so as to provide communication over the single physical link, the features of coupling each of the access points with the hub over a single, respective link among multiple links provided by the communication medium, or the features of arranging the hub and the wireless communication units to exchange control messages over the communication medium via the single physical layer interface so as to determine which of the wireless communication units is to serve each of the mobile stations.

**Conclusion**


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Lewis patent, 6,393,261, the Poyhonen patent, the Mahany patent, and the Eng et al. patent, are cited for further references.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Min Jung whose telephone number is 571-272-3127. The examiner can normally be reached on Monday, Tuesday, and Thursday 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 703-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ  
December 7, 2004

  
Min Jung  
Primary Examiner